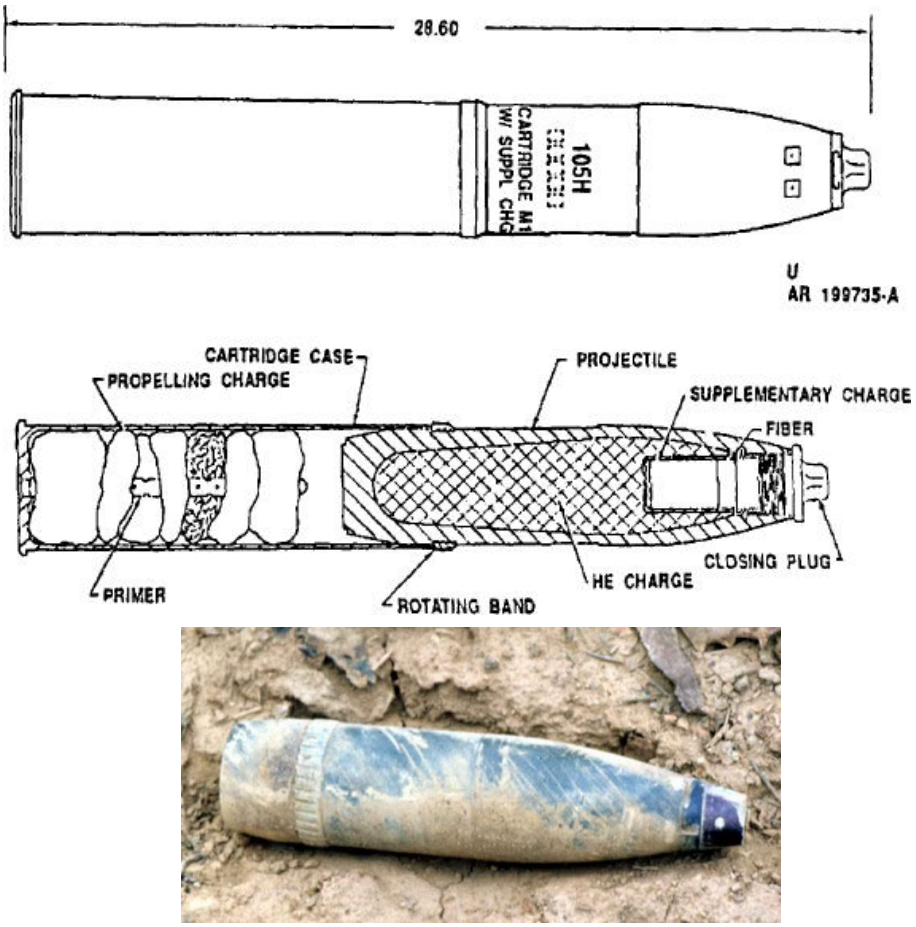
Projectile, 105 mm HE, M1



Use :
The projectile contains high explosive and is used for fragmentation, blast, and mining in support of ground troops and armored columns.

Description :
The projectile consists of a hollow steel forging with a boat tail base, a streamlined ogive, and gilding metal rotating band. A base cover is welded to the base of the projectile for added protection against the entrance of hot gases from the propelling charge during firing. The high explosive (HE) filler within the projectile may be either cast TNT or Composition B. A fuze cavity is either drilled or formed in the filler at the nose end of the projectile. This cavity may be either shallow or deep. A cavity liner, to preclude dusting of HE during transportation and handling, is seated in the cavity and expanded into the lower projectile fuze threads. A supplementary charge is placed in the fuze cavity of projectiles having deep cavities. Projectiles with shallow cavities or deep cavities containing a supplementary charge use only short intrusion fuzes, PD, or MT. Those with deep cavities will accept the long intrusion proximity fuze after removing the supplementary charge. Projectiles may be shipped with a PD or MTSQ fuze or with a closing plug. When shipped with a closing plug, a chip board spacer is assembled

Projectile, 105 mm HE, M1 (Con't.)

between the supplementary charge and plug to limit movement of the former during transportation and handling.

The cartridge case contains a percussion primer assembly and seven individually bagged and numbered propelling charge increments. The base of the cartridge case is drilled and the primer assembly is pressed into the base. The percussion primer assembly consists of a percussion ignition element and a perforated flash tube containing black powder. The seven numbered increment bags are tied together, in numerical order, with acrylic cord. These are assembled into the cartridge case, around the primer flash tube, with Increment 1 at the base of the cartridge case and Increment 7 toward the mouth of the cartridge case.

- Dimensions
  - Length, with closing plug - 28.6 inches, 726.44 mm
- Weights
  - Complete - 39.92 lbs, 18.15 kg

Markings :

Olive drab with yellow markings.

Operation :

If the projectile is unfuzed, the closing plug is removed and a fuze assembled to the projectile prior to adjusting the charge and loading the cartridge into the weapon. Impact of the weapon firing pin results in the initiation of the percussion primer which, in turn, ignites the black powder in the flash tube. The flash tube provides for uniform ignition of the propelling charge producing a rapid expansion of the propellant gas which propels the projectile out of the weapon tube. Engagement of the projectile rotating band with the rifling of the weapon tube imparts spin to the projectile providing inflight stability. Projectile functioning is dependent upon the fuze used and may function on impact (instantaneous or delay), function above ground either at a predetermined height based upon time of flight or function in proximity with the target area. Fuze function detonates the HE projectile filler resulting in projectile fragmentation and blast.

Hazardous Components :

- Fillers
  - Composition B
    - Deep cavity - 5.08 lbs, 2.31 kg
    - Normal cavity - 4.60 lbs, 2.09 kg
  - TNT
    - Deep cavity - 4.80 lbs, 2.18 kg
    - Normal cavity - 4.25 lbs, 1.93 kg
- Cartridge case - M14 Brass, M14B1, M14B3, M14B4 Steel
- Propellant - M1, 2.83 lbs, 1.29 kg
- Primer - M28A2, M28B2
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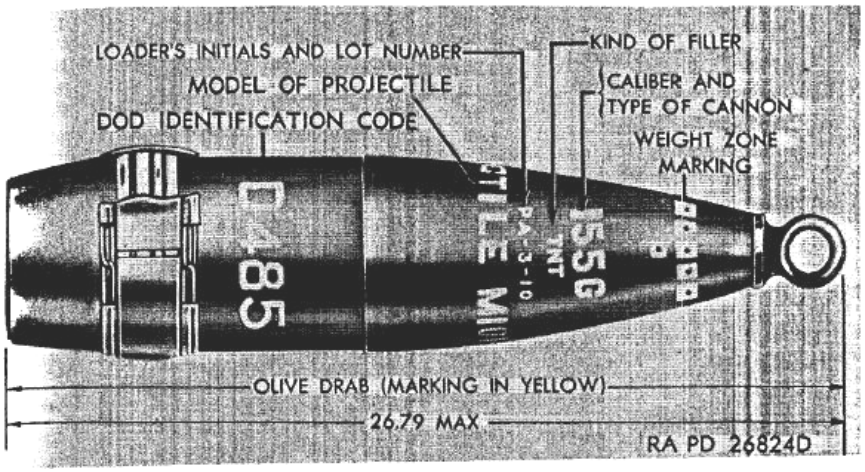
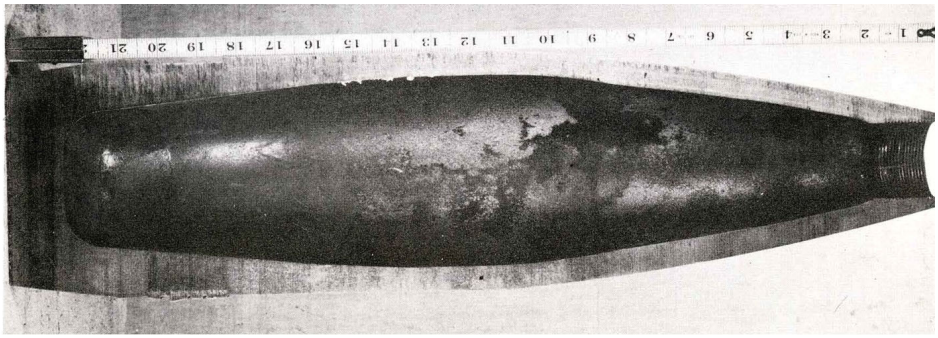
Sources: (1) **dudbusters.com (http://www.dudbusters.com/library/online.htm)**

(2) **ORDATA Online (http://www.maic.jmu.edu/ordata/search.asp?SearchMode=1) NAVEODTECHDIV, ATTN: Code 602, 2008 Stump Neck Road, Indian Head, MD, USA, 20640-5070**

Projectile, 155 mm HE, M101





Use :
This is an Army, spin stabilized, gun fired, high explosive (HE) projectile.

Description :
The projectile is painted olive drab with yellow markings.

- Dimensions
  - Length - 605.00 mm
- Weights
  - Complete - 44.00 kg

Markings :

Yellow

Hazardous Components:

Filler - TNT

Source: ORDATA Online (http://www.maic.jmu.edu/ordata/search.asp?SearchMode=1) NAVEODTECHDIV, ATTN: Code 602, 2008 Stump Neck Road, Indian Head, MD, USA, 20640-5070